PATENT

Our Docket: P-LJ 4494

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Reed and Sato

Serial No.: Pending

Filed: Herewith

For: CD40 ASSOCIATED

PROTEINS

Commissioner for Patents Washington, D.C. 20231

Sir:

Group Art Unit: Unknown Yet

Examiner: Unknown Yet

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

"EXPRESS MAIL" MAILING LABEL NUMBER: EL690155804US

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I HEREBY CERTIFY THAT THIS PAPER OR FEE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE "EXPRESS MAIL POST OFFICE TO ADDRESSEE" SERVICE UNDER 37 C.F.R. 1.10 ON THE DATE INDICATED ABOVE, AND IS ADDRESSED TO: COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231.

Lijan Puthuvalal
(TYPED OR PRINTED NAME OR PARSON MATLING PAPER OR FEE)
(SIGNATURE OF PERSON MAILING PAPER OR FEE)

REQUEST TO USE COMPUTER READABLE FORM OF SEQUENCE LISTING FROM ANOTHER APPLICATION

The computer readable form in the above-referenced application is identical with that filed in Application Number 08/349,357, filed December 2, 1994. In accordance with 37 CFR 1.821(e), please use the last-filed computer readable form filed in that application as the computer readable form for the instant application. It is understood that the Patent and Trademark Office will make the necessary change in application number and filing date for the computer readable form that will be used for the instant application. A paper copy of the Sequence Listing is included in a separately filed preliminary amendment for incorporation into the specification of the instant application.

The Commissioner is hereby authorized to charge payment of any fees associated with the filing submitted herewith or credit any overpayment to Deposit Account No. 03-0370. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Date: January 9, 2001

Robert T. Rambs

Registration No. 37,915

Telephone No.: (858) 535-9001 Facsimile No.: (858) 535-8949

CAMPBELL & FLORES LLP 4370 La Jolla Village Drive 7th Floor San Diego, California 92122 **USPTO CUSTOMER NO. 23601**

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ADDRESSED TO: COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231.

CIGNATURE OF PERSON MAILING PAPER OF FEE)

STATEMENT UNDER 37 C.F.R. § 1.821(f) and (q)

I hereby state that the content of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 CFR § 1.821(c) and (e), respectively, are the same. I hereby state that the paper and computer readable copies submitted herein are identical to those previously submitted on July 17, 1995, in U.S. Serial No. 08/349,357.

I hereby state that the submission, filed in accordance with 37 C.F.R. \S 1.821(g) herein does not include new matter.

Respectfully submitted,

<u>January 9, 2001</u>

Date

Robert T. Ramos

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CAMPBELL & FLORES LLP 4370 La Jolla Village Drive Suite 700 San Diego, California 92122 USPTO CUSTOMER NO. 23601

SEQUENCE LISTING



(1) GENERAL	INFORMATION
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- (i) APPLICANT: Reed, John C. Sato, Takaaki
- (ii) TITLE OF INVENTION: CD40 Associated Proteins
- (iii) NUMBER OF SEQUENCES: 17
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Campbell and Flores
 - (B) STREET: 4370 La Jolla Village Drive, Suite 700
 - (C) CITY: San Diego
 - (D) STATE: California
 - (E) COUNTRY: USA
 - (F) ZIP: 92122
- (V) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
- (Vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 08/349,357
 - (B) FILING DATE: 02-DEC-1994
 - (C) CLASSIFICATION:
- (Viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Campbell, Cathryn A.

 - (B) REGISTRATION NUMBER: 31,815 (C) REFERENCE/DOCKET NUMBER: P-LJ 1203
 - (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: (619) 535-9001
 - (B) TELEFAX: (619) 535-8949
- (2) INFORMATION FOR SEQ ID NO:1:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2240 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ix) FEATURE:
 - (A) NAME/KEY: CDS
 - (B) LOCATION: 137..1766
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

AGAAGTGATG	CCACTTGGTT	AAGGTCCCAG AGCAGGTCAG AATCAGACCT AGGATCAGAA	60
ACCTGGCTCC	TGGCTCCTGG	CTCCCTACTC TTCTAAGGAT CGCTGTCCTG ACAGAAGAGA	120
ACTCCTCTT	CCTAAA ATG Met 1	GAG TCG AGT AAA AAG ATG GAC TCT CCT GGC Glu Ser Ser Lys Lys Met Asp Ser Pro Gly 10	169

GCG CTG CAG ACT AAC CCG CCG CTA AAG CTG-CAC ACT GAC CGC AGT GCT 217 Ala Leu Gln Thr Asn Pro Pro Leu Lys Leu His Thr Asp Arg Ser Ala 15 20

GGG Gly	ACG Thr	CCA Pro 30	GTT Val	TTT Phe	GTC Val	CCT Pro	GAA Glu 35	CAA Gln	GGA Gly	GGT Gly	TAC Tyr	AAG Lys 40	GAA Glu	AAG Lys	TTT Phe		265
GTG Val	AAG Lys 45	ACC Thr	GTG Val	GAG Glu	GAC Asp	AAG Lys 50	TAC Tyr	AAG Lys	TGT Cys	GAG Glu	AAG Lys 55	TGC Cys	CAC His	CTG Leu	GTG Val		313
CTG Leu 60	TGC Cys	AGC Ser	CCG Pro	AAG Lys	CAG Gln 65	ACC Thr	GAG Glu	TGT Cys	GGG Gly	CAC His 70	CGC Arg	TCC Ser	TGC Cys	GAG Glu	AGC Ser 75		361
TGC Cys	ATG Met	GCG Ala	GCC Ala	CTG Leu 80	CTG Leu	AGC Ser	TCT Ser	TCA Ser	AGT Ser 85	CCA Pro	AAA Lys	TGT Cys	ACA Thr	GCG Ala 90	TGT Cys		409
CAA Gln	GAG Glu	AGC Ser	ATC Ile 95	GTT Val	AAA Lys	GAT Asp	AAG Lys	GTG Val 100	TTT Phe	AAG Lys	GAT Asp	AAT Asn	TGC Cys 105	TGC Cys	AAG Lys		457
AGA Arg	GAA Glu	ATT Ile 110	CTG Leu	GCT Ala	CTT Leu	CAG Gln	ATC Ile 115	TAT Tyr	TGT Cys	cgg Arg	AAT Asn	GAA Glu 120	AGC Ser	AGA Arg	gg t Gly		505
TGT Cys	GCA Ala 125	GAG Glu	CAG Gln	TTA Leu	ACG Thr	CTG Leu 130	GGA Gly	CAT His	CTG Leu	CTG Leu	GTG Val 135	CAT His	TTA Leu	AAA Lys	AAT Asn		553
GAT Asp 140	TGC Cys	CAT His	TTT Phe	GAA Glu	GAA Glu 145	CTT Leu	CCA Pro	TGT Cys	GTG Val	CGT Arg 150	CCT Pro	GAC Asp	TGC Cys	AAA Lys	GAA Glu 155		601
AAG Lys	GTC Val	TTG Leu	AGG Arg	AAA Lys 160	GAC Asp	CTG Leu	CGA Arg	GAC Asp	CAC His 165	GTG Val	GAG Glu	AAG Lys	GCG Ala	TGT Cys 170	AAA Lys		649
TAC Tyr	CGG Arg	GAA Glu	GCC Ala 175	ACA Thr	TGC Cys	AGC Ser	CAC His	TGC Cys 180	AAG Lys	AGT Ser	CAG Gln	GTT Val	CCG Pro 185	ATG Met	ATC Ile :		697
GCG Ala	CTG Leu	CAG Gln 190	AAA Lys	CAC His	GAA Glu	GAC Asp	ACC Thr 195	GAC Asp	TGT Cys	CCC Pro	TGC Cys	GTG Val 200	GTG Val	GTG Val	TCC Ser		745
TGC Cys	CCT Pro 205	CAC His	AAG Lys	TGC Cys	AGC Ser	GTC Val 210	CAG Gln	ACT Thr	CTC Leu	CTG Leu	AGG Arg 215	AGC Ser	GAG Glu	GGG Gly	ACA Thr		793
AAC Asn 220	CAG Gln	CAG Gln	ATC Ile	AAG Lys	GCC Ala 225	CAC His	GAG Glu	GCC Ala	AGC Ser	TCC Ser 230	GCC Ala	GTG Val	CAG Gln	CAC His	GTC Val 235		841
AAC Asn	CTG Leu	CTG Leu	AAG Lys	GAG Glu 240	TGG Trp	AGC Ser	AAC Asn	TCG Ser	CTC Leu 245	GAA Glu	AAG Lys	AAG Lys	GTT Val	TCC Ser 250	TTG Leu		889
TTG Leu	CAG Gln	AAT Asn	GAA Glu 255	AGT Ser	GTA Val	GAA Glu	AAA Lys	AAC Asn 260	AAG Lys	AGC Ser	ATA Ile	CAA Gln	AGT Ser 265	TTG Leu	CAC His		937
AAT Asn	CAG Gln	ATA Ile 270	TGT Cys	AGC Ser	TTT Phe	GAA Glu	ATT Ile 275	GAA Glu	ATT Ile	GAG Glu	AGA Arg	CAA Gln 280	AAG Lys	GAA Glu	ATG Met		985
CTT Leu	CGA Arg 285	AAT Asn	AAT Asn	GAA Glu	TCC Ser	AAA Lys 290	ATC Ile	CTT Leu	CAT His	ŢTA Leu	CAG Gln 295	CGA Arg	GTG Val	ATA Ile	GAC Asp	1	1033

AGC CAA GCA GAG AAA CTG AAG GAG CTT GAC AAG GAG ATC CGG TCC TTC Ser Gln Ala Glu Lys Leu Lys Glu Leu Asp Lys Glu Ile Arg Ser Phe 300 305 310	1081
CGG CAG AAC TGG GAG GAA GCA GAC AGC ATG AAG AGC AGC GTG GAG TCC Arg Gln Asn Trp Glu Glu Ala Asp Ser Met Lys Ser Ser Val Glu Ser 320 325 330	1129
CTC CAG AAC CGC GTG ACC GAG CTG GAG AGC GTG GAC AAG AGC GCG GGG Leu Gln Asn Arg Val Thr Glu Leu Glu Ser Val Asp Lys Ser Ala Gly 335 340 345	1177
CAA GTG GCT CGG AAC ACA GGC CTG CTG GAG TCC CAG CTG AGC CGG CAT Gln Val Ala Arg Asn Thr Gly Leu Leu Glu Ser Gln Leu Ser Arg His 350 355 360	1225
GAC CAG ATG CTG AGT GTG CAC GAC ATC CGC CTA GCC GAC ATG GAC CTG Asp Gln Met Leu ser Val His Asp Ile Arg Leu Ala Asp Met Asp Leu 365 370 375	1273
CGC TTC CAG GTC CTG GAG ACC GCC AGC TAC AAT GGA GTG CTC ATC TGG Arg Phe Gln Val Leu Glu Thr Ala Ser Tyr Asn Gly Val Leu Ile Trp 380 395	1321
AAG ATT CGC GAC TAC AAG CGG CGG AAG CAG GAG GCC GTC ATG GGG AAG Lys Ile Arg Asp Tyr Lys Arg Arg Lys Gln Glu Ala Val Met Gly Lys 400 405 410	1369
ACC CTG TCC CTT TAC AGC CAG CCT TTC TAC ACT GGT TAC TTT GGC TAT Thr Leu Ser Leu Tyr Ser Gln Pro Phe Tyr Thr Gly Tyr Phe Gly Tyr 415 420 425	1417
AAG ATG TGT GCC AGG GTC TAC CTG AAC GGG GAC GGG ATG GGG AAG GGG Lys Met Cys Ala Arg Val Tyr Leu Asn Gly Asp Gly Met Gly Lys Gly 430 435 440	1465
ACG CAC TTG TCG CTG TTT TTT GTC ATC ATG CGT GGA GAA TAT GAT GCC Thr His Leu Ser Leu Phe Phe Val Ile Met Arg Gly Glu Tyr Asp Ala 445 450 455	1513
CTG CTT CCT TGG CCG TTT AAG CAG AAA GTG ACA CTC ATG CTG ATG GAT Leu Leu Pro Trp Pro Phe Lys Gln Lys Val Thr Leu Met Leu Met Asp 465 470 475	1561
CAG GGG TCC TCT CGA CGT CAT TTG GGA GAT GCA TTC AAG CCC GAC CCC Gln Gly Ser Ser Arg Arg His Leu Gly Asp Ala Phe Lys Pro Asp Pro 480 485 490	1609
AAC AGC AGC TTC AAG AAG CCC ACT GGA GAG ATG AAT ATC GCC TCT Asn Ser Ser Phe Lys Lys Pro Thr Gly Glu Met Asn Ile Ala Ser 495 500 505	1657
GGC TGC CCA GTC TTT GTG GCC CAA ACT GTT CTA GAA AAT GGG ACA TAT Gly Cys Pro Val Phe Val Ala Gln Thr Val Leu Glu Asn Gly Thr Tyr 510 520	1705
ATT AAA GAT GAT ACA ATT TTT ATT AAA GTC ATA GTG GAT ACT TCG GAT Ile Lys Asp Asp Thr Ile Phe Ile Lys Val Ile Val Asp Thr Ser Asp 525 530 535	1753
CTG CCC GAT CCC T GATAAGTAGC TGGGGAGGTG GATTTAGCAG AAGGCAACTC Leu Pro Asp Pro 540	1806
CTCTGGGGGA TTTGAACCGG TCTGTCTTCA CTGAGGTCCT CGCGCTCAGA AAAGGACCTT	1866
GTGAGACGGA GGAAGCGGCA GAAGGCGGAC GCGTGCCGGC GGGAGGAGCC ACGCGTGAGA	1926

CACCTGACAC	GTTTTATAAT	AGACTAGCCA	CACTTCACTC	TGAAGAATTA	TTTATCCTTC	1986
AACAAGCATA	AATATTGCTG	TCAGAGAAGG	TTTTCATTTT	CATTTTTAAA	GATCTAGTTA	2046
ATTAAGGTGG	AAAACATATA	TGCTAAACAA	AAGAAACATG	ATTTTTCTTC	CTTAAACTTG	2106
AACACCAAAA	AACACACACA	CACACACACA	CGTGGGGATA	GCTGGACATG	TCAGCATGTT	2166
AAGTAAAAGG	AGAATTTATG	AAATAGTAAT	GCAATTCTGA	TATCTTCTTT	CTAAAATTCA	2226
AGAGTGCAAT	TTTG					2240

(2) INFORMATION FOR SEQ ID NO:2:

- . (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 543 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met Glu ser Ser Lys Lys Met Asp Ser Pro Gly Ala Leu Gln Thr Asn 1 5 10 15

Pro Pro Leu Lys Leu His Thr Asp Arg Ser Ala Gly Thr Pro Val Phe 20 25 30

Val Pro Glu Gln Gly Gly Tyr Lys Glu Lys Phe Val Lys Thr Val Glu 35 40 45

Asp Lys Tyr Lys Cys Glu Lys Cys His Leu Val Leu Cys Ser Pro Lys 50 55 60

Gln Thr Glu Cys Gly His Arg Ser Cys Glu Ser Cys Met Ala Ala Leu 65 70 75 80

Leu Ser Ser Ser Pro Lys Cys Thr Ala Cys Gln Glu Ser Ile Val

Lys Asp Lys Val Phe Lys Asp Asn Cys Cys Lys Arg Glu Ile Leu Ala

Leu Gln Ile Tyr Cys Arg Asn Glu Ser Arg Gly Cys Ala Glu Gln Leu 115 120 125

Thr Leu Gly His Leu Leu Val His Leu Lys Asn Asp Cys His Phe Glu 130 135 140

Glu Leu Pro Cys Val Arg Pro Asp Cys Lys Glu Lys Val Leu Arg Lys 145 150 155 160

Asp Leu Arg Asp His Val Glu Lys Ala Cys Lys Tyr Arg Glu Ala Thr 165 170 175

Cys Ser His Cys Lys Ser Gln Val Pro Met Ile Ala Leu Gln Lys His

Glu Asp Thr Asp Cys Pro Cys Val Val Val Ser Cys Pro His Lys Cys 195 200 205

Ser Val Gln Thr Leu Leu Arg Ser Glu Gly Thr Asn Gln Gln Ile Lys 210 220

Ala His Glu Ala Ser Ser Ala Val Gln His Val Asn Leu Leu Lys Glu Trp Ser Asn Ser Leu Glu Lys Lys Val Ser Leu Leu Gln Asn Glu Ser Val Glu Lys Asn Lys Ser Ile Gln Ser Leu His Asn Gln Ile Cys Ser Phe Glu Ile Glu Ile Glu Arg Gln Lys Glu Met Leu Arg Asn Asn Glu Ser Lys Ile Leu His Leu Gln Arg Val Ile Asp Ser Gln Ala Glu Lys Leu Lys Glu Leu Asp Lys Glu Ile Arg Ser Phe Arg Gln Asn Trp Glu Glu Ala Asp Ser Met Lys Ser Ser Val Glu Ser Leu Gln Asn Arg Val Thr Glu Leu Glu Ser Val Asp Lys Ser Ala Gly Gln Val Ala Arg Asn Thr Gly Leu Leu Glu Ser Gln Leu Ser Arg His Asp Gln Met Leu Ser Val His Asp Ile Arg Leu Ala Asp Met Asp Leu Arg Phe Gln Val Leu Glu Thr Ala Ser Tyr Asn Gly Val Leu Ile Trp Lys Ile Arg Asp Tyr Lys Arg Arg Lys Gln Glu Ala Val Met Gly Lys Thr Leu Ser Leu Tyr ser Gln Pro Phe Tyr Thr Gly Tyr Phe Gly Tyr Lys Met Cys Ala Arg Val Tyr Leu Asn Gly Asp Gly Met Gly Lys Gly Thr His Leu Ser Leu Phe Phe Val Ile Met Arg Gly Glu Tyr Asp Ala Leu Leu Pro Trp Pro Phe Lys Gln Lys Val Thr Leu Met Leu Met Asp Gln Gly Ser Ser Arg Arg His Leu Gly Asp Ala Phe Lys Pro Asp Pro Asn Ser Ser Phe Lys Lys Pro Thr Gly Glu Met Asn Ile Ala Ser Gly Cys Pro Val Phe

Val Ala Gln Thr Val Leu Glu Asn Gly Thr Tyr Ile Lys Asp Asp Thr

Ile Phe Ile Lys Val Ile Val Asp Thr Ser Asp Leu Pro Asp Pro

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(2) INFORMATION FOR SEQ ID NO.3:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 22 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(XI) SEQUENCE DESCRIPTION: SEQ ID NO:3: GGAATTCAAA AAGGTGGCCA AG	22
	22
(2) INFORMATION FOR SEQ ID NO:4:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:	
TGATCATCAC TGTCTCCT GCAC	24
(2) INFORMATION FOR SEQ ID NO:5:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:	
GGAATTCAAG GCCCCCACC CCAAG	25
(2) INFORMATION FOR SEQ ID NO:6:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:	
TGATCAACTC TCTTTGCCAT CCTC	24

(2) INFORMATION FOR SEQ ID NO:7:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 25 base pairs	
(B) TYPE: nucleic acid (C) STRANDEDNESS: single	
(D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:	
GGAATTCAAG AGAAAGGAAG TACAG	25
(2) INFORMATION FOR SEQ ID NO:8:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 25 base pairs	
(B) TYPE: nucleic acid (C) STRANDEDNESS: single	
(D) TOPOLOGY: linear	
AND CHAIRMAN PROPERTY.	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:	
GTGATCACTA GACCAAGCTT TGGAT	25
(2) INFORMATION FOR SEQ ID NO:9:	
(i) SEQUENCE CHARACTERISTICS:	
(A) LENGTH: 27 base pairs (B) TYPE: nucleic acid	
(C) STRANDEDNESS: single	
(D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:	
GGAATTCAAA AAGAAGCCCT TGTGCCT	27
(2) INFORMATION FOR SEQ ID NO:10:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 26 base pairs	
(B) TYPE: nucleic acid	
(C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(2) coronour. Trucar	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:	
GGTCGACTTA ACTGGGCTTC ATCCCA	26
- · · · · · · ·	20

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(2) INFORMATION FOR SEQ ID NO:11:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(-,	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:	
GGGATCCGCT ACCAACGGTG GAAG	24
(2) INFORMATION FOR SEQ ID NO:12:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:	
GGTCGACTCA TCTGAGAAGA CTGGG	25
(2) INFORMATION FOR SEQ ID NO:13:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 54 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(XI) SEQUENCE DESCRIPTION: SEQ ID NO:13:	
TAATACGACT CACTATAGGG AGACCACATG GATGATGTAT ATAACTATCA TTTC	54
(2) INFORMATION FOR SEQ ID NO:14:	34
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 36 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:	
CTACCAGAAT TCGGCATGCC GGTAGAGGTG TGGTCA	36

(2) INFORMATION FOR SEQ ID NO:15:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:	
GCGTTAACTG CTCTGCACAA	20
(2) INFORMATION FOR SEQ ID NO:16:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:	
GTACATTTTG GACTTGAAGA	20
(2) INFORMATION FOR SEQ ID NO:17:	
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 28 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:	
GAATTCCCGG GGATCCGTCG ACCTGCAG	28